## ABSTRACT OF THE DISCLOSURE

The technology described relates to management of data packets and buffers comprising segments of data packets in a mobile communication system. Information associated with data packet segments is analyzed by a Base Station System (BSS) housing a data buffer. Based on this information analysis, the BSS can identify those segments in the buffer that constitute a complete data packet. Once identified, the segments can be discarded from the buffer. The information can include size information, whereby the analysis comprises pairwise comparing the size of a current segment with the size of a next consecutive segment. This size comparison enables identification of a first segment and a last segment of the complete data packet. The information could also, or alternatively, include a notification provided in the header of the segment. This notification identifies the associated segment as the first or last segment of the data packet or an intermediate segment.